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ABSTRACT

The leavetakings and reunions of infants, toddlers, preschoolers, and their parents were observed as 56 children were dropped off and picked up at nursery school. During the pilot phase of the study, shorthand running records were made of the behaviors of each child and his or her parent for all of their leavetaking and reunion episodes. From 100 running records, checklists were derived to represent behaviors characteristically observed. During the 6-week observation phase of the study undertaken at the beginning of the fall semester, 15 randomly selected leavetakings were observed for each child. Six months later, 10 leavetakings and 10 reunions were observed for each child during an additional 6-week period. A complete set of observations was produced for 40 children. In addition to multivariate and univariate analyses of variance and post hoc comparisons by Bonferroni "t" tests, regression analyses were conducted to determine which child and parent behaviors accounted for the variance in separation distress and which behaviors accounted for differences in behavior upon reunion. Results are discussed. (RH)

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Leavetakings and reunions of infants, toddlers, preschoolers and their parents

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ABSTRACT

The leavetakings and reunions of infants, toddlers, preschoolers and their parents were observed as the children were "dropped off" and "picked up" at their nursery school each day. Upon arrival at their classroom infants and toddlers related primarily to their parents while preschoolers related to their teachers. Girls more frequently engaged in interaction with their teachers and boys more frequently approached the children's play activities. Distress behaviors during the parent's departures were most frequently shown by toddlers, and the toddlers' parents hovered about them and "sneaked out of the room" more frequently. Children "dropped off" by mothers versus fathers showed more attention-getting behavior and crying, and mothers versus fathers engaged in more "distracting the child" behaviors and showed a longer latency to leave the classroom. During the second semester of observations parents and children spent less time relating to each other during leavetaking, children protested the departures less frequently and the parents left the classroom more quickly. Regression analyses on distress behaviors during leavetakings and ambivalent behavior during reunions suggested that parent behaviors such as verbal explanation, distracting the child, latency to leave and "sneaking out of the room" contributed to children's distress. Finally, leavetaking distress was related to ambivalent behavior at reunion.

Leavetakings and reunions of infants, toddlers, preschoolers and their parents

Separation and reunion behaviors have received considerable attention as indices of early attachment bonds (Ainsworth & Wittig, 1969; Bowlby, 1973). Protest are separation and positive greetings or contact avoidance at reunion have been treated as measures of the quality of the parent-child relationship (Stayton, Ainsworth, & Main, 1973). Typically, the separation and reunion behaviors of infants and young children have been studied in a single laboratory session in which the parent leaves the child either in an unfamiliar room or with an unfamiliar person (Ainsworth & Bell, 1970). For increasing numbers of infants, toddlers, and preschoolers attending nursery schools, leavetakings are a daily experience. The duration of these separations and their contextual features, such as the child being left in a familiar setting with a familiar teacher and peers, differs from the setting conditions of the laboratory studies, highlighting the need for studying leavetaking and reunion behaviors in the child's own classroom.

The only published studies on nursery school leavetakings were conducted in other cultures, in England by Blurton Jones and Leach (1972) and in Australia by Noller (1978). Blurton Jones and Leach (1972) studied the behaviors of 2-4-year-olds and their mothers when the children were "dropped-off" and "picked-up" at a play group organized for the purpose of their study. Factor analyses of 20 child and 4 mother behaviors revealed a few departure/reunion styles. Children who cried at separation showed either rapid approach or no response except looking at the mother during reunions. Whereas those who showed a ready departure typically continued playing and showed "things" to the mother during their reunions. A comparison between mothers of children who cried and mothers of those who did not cry at separation suggested that the former

mothers more often approached the child during separation, less often smiled, and more often "slipped-out" of the room. In addition, mothers of children who cried touched their children more frequently during reunions. However, when the effects of highly associated approach behaviors of the child were removed, mothers of criers and non-criers did not differ. Blurton Jones and Leach (1972) thus suggested that much of the separation/reunion behavior is determined by the child with the mother merely being "in a 'responding mode' at these times, mainly waiting to receive and act on signals from her child" (1972, pg. 232). However, it is also conceivable that differences between these mothers were not detected, because very few behaviors were recorded for the mothers.

Another study on the goodbye rituals of parents and children was conducted in an Australian daycare center by Noller (1978), addressing the question of differential treatment of 3-5-year-old boys and girls by their mothers and fathers. Affectionate interaction was high for parent-daughter dyads, but very low in father-son dyads. While acknowledging that interactions are invariably bi-directional, Noller (1978) seemed to attribute differences in departure routines to the parent and particularly to the parent's sex. Like the Blurton Jones and Leach (1972) study, the focus on the behavior of one member of the dyad, in this case the parent, may distort the picture of the leavetaking process.

The purpose of the present study was to investigate the daily leavetaking and greeting behaviors of both members of the child-parent dyad as the child was "dropped-off" and "picked-up" at nursery school. This study differed from previous studies on leavetaking in the broad age range of the children (3 months to 6 years), the comparison of the behaviors of mothers and fathers of the same children, and longitudinal observations of the same children. Thus, age differences in leavetaking/greeting behavior could be assessed

as well as differences in departure/reunion styles across leavetaking parent (mother or father) and across two semesters of nursery school.

METHOD

Sample

The sample included every child (N = 56) attending a full-day university nursery school. The school was designed by the first author (TF) to provide a nursery school experience for children of the university medical school faculty and staff and to serve as an observational research laboratory. The curriculum was oriented toward learning center experiences in the tradition of the open-classroom, experiences in art, music, dance and drama, and free play in classroom and playground areas designed to facilitate fantasy play. The parents were well-educated, middle-income, and represented a variety of ethnic groups.

The children (33 males, 23 females) ranged in age from 3 months to 69 months at the beginning of the study, and were 8 months older at the end of the study. The initial age range of the infants was 3-17 months (M age = 9 months), 18-29 months (M age = 24 months) for the toddlers, and 30-69 months (M age = 48 months) for the preschoolers. The infant nursery was comprised of 16 infants (10 males, 6 females) and 4 teachers; the toddler class of 16 toddlers (9 males, 7 females) and 2 teachers; and the preschool class of 24 children (14 males, 10 females) and 2 teachers. The mean IQ of the children was 115.

Procedure

Observations were conducted daily inside the classroom for the first six weeks of the fall nursery school semester and again six months later for six weeks by research assistants naive to the hypotheses of the study. During the piloting phase, short-hand "running-records" were made of the behaviors of each child and his or her parent for the entirety of their leavetaking and

reunion episodes. From 100 running records, behavior checklists were derived to represent those behaviors characteristically observed.

The presence of the following leavetaking behaviors was coded for both child and parent: looking, vocalizing/talking, and moving toward. These behaviors were coded as a function of whether the behavior was directed by the parent or by the child to each other, to the teacher or to the other children's ongoing activities. The behaviors kissing, hugging, saying bye, and hover (child following mother and staying in proximity (3 feet) or parent doing same) were also coded for both parent and child. Behaviors coded only for the child included: attention-getting behavior (verbally or physically intrusive behaviors such as yelling or tugging at the parent), verbal protest, reaching up to or clinging to parent, and crying. Behaviors coded only for the parent included verbal explanation or reassurance regarding leavetaking, distracting child (diverting the child's attention from the parent to teacher, children, toys, or activities), "sneaking out" of classroom and the latency of the parent to leave the classroom (measured by a stopwatch).

Similarly, a reunion behavior checklist was derived from the running records of reunions or greeting episodes that occurred at the end of each day. These included: initiator of the greeting (parent or child), parent moving toward child, child continuing play, latency of child to move to parent, content of greeting (smiling, kissing, hugging by parent or child, child reaching up to parent), chatting (parent or child), caretaking activity by parent, child moving away from parent, and child leading departure (moving ahead of parent or pulling parent in direction of classroom door).

The presence of these leavetaking and reunion behaviors was coded on a behavior checklist. In addition, an anecdotal running record was written on these episodes to provide a record of qualitative features of the dyads' leavetakings and reunions.

Fifteen randomly selected leavetakings were observed for each child across a six-week period at the beginning of the fall semester. Six months later, 10 leavetakings and 10 reunions were observed for each child across a six-week period. A complete set of observations on children remaining in the same classroom was available for 40 children. The data for those children who were graduated from one classroom to the next between semesters were omitted. Interobserver reliabilities were assessed for approximately 10% of the episodes across both six-week periods. Number of agreements and disagreements on the presence of the coded behaviors were analyzed by Kappa, a chance-corrected statistic (Bartko & Carpenter, 1976). Reliability coefficients ranged from .78 to .99 and averaged .92. See Tables 1, 2, and 4 for individual behavior coefficients.

For data analyses, the percentage of leavetaking and greeting observations that each behavior occurred was calculated for each child for each of the two semesters. Multivariate analyses of variance followed by univariate analyses of variance and post hoc comparisons by Bonferroni *t* tests were conducted using the child's age group and sex, sex of parent, and semester as independent measures. Finally, regression analyses were conducted using distressed behaviors at leavetaking as dependent measures to determine which child and parent behaviors accounted for the variance in separation distress and which child and parent behaviors accounted for the children's reluctance or readiness to leave the classroom at reunion.

Results

Because the multivariate analysis of variance yielded a significant value, univariate ANOVAs (age group x sex of child x sex of parent x semester) were conducted followed by post hoc comparisons by Bonferroni *t* tests (Myers, 1972).

Leavetaking behaviors

Age comparisons. After entering the classroom the infants and toddlers looked at their parents and at the activities of the other children more frequently than the preschoolers who looked more frequently at their teachers. (See Table 1 for means and F values). The toddlers more frequently moved toward their parents during leavetakings than the preschoolers who more frequently moved toward their teacher. However, as can be seen in Table 1, upon arrival at the classroom, children of all ages tended to move toward the children's activities. Toddlers' vocalizations were more often directed to their parents, whereas preschoolers talked to their teachers more frequently than the other groups. Similarly, parents of infants and toddlers more frequently looked at, moved toward, and talked to their child, whereas parents of preschoolers looked at, moved toward, and talked to their child's teacher more frequently. (See Table 2).

During the departures, the toddlers and preschoolers kissed and hugged their parents and the preschoolers said goodbye more frequently than the infants. (See Table 1). Except for hugging, which was more frequently directed to toddlers and preschoolers, the incidence of these behaviors did not differ across parents. (See Table 2).

During leavetaking, the toddlers showed more hovering, attention-getting behaviors, verbal protest, reaching/clinging, and crying than the infants and preschoolers. (See Table 1). Again, parallels were noted in the parents' behaviors. Parents of toddlers showed more hovering and "sneaking out of the room", and the parents of infants and toddlers engaged in more "distracting the child" tactics than parents of preschoolers. (See Table 2). Although the latency to leave was greater for the parents of infants, their additional time in the classroom was spent attending to infant-nursery routines such as stocking the infants' cubbies with diapers, clothing, and foodstuffs. Thus,

parent latency to leave was entered as a covariate in the above analyses.

Insert Tables 1 and 2 about here

Sex of child comparisons. Main effects for sex of child suggested that girls more frequently moved toward (19 vs. 6%, $F(1,34) = 9.21$, $p < .005$) and talked to their teachers (12 vs. 5%, $F(1,34) = 4.27$, $p < .05$), while boys more frequently moved toward the children's activities (59 vs. 46%, $F(1,34) = 4.77$, $p < .05$). In addition, girls showed more verbal protest than boys (6 vs. 3%, $F(1,34) = 6.36$, $p < .05$).

Sex of parent comparisons. Main effects for sex of parent suggested that children "dropped off" by the mother as opposed to the father showed more frequent attention-getting (7 vs. 2%, $F(1,34) = 4.93$, $p < .05$) and crying behaviors (11 vs. 4%, $F(1,34) = 6.41$, $p < .05$). Mothers, in contrast to fathers, moved toward the children's activity (12 vs. 3%, $F(1,34) = 9.13$, $p < .005$), talked to the child 43 vs. 29%, $F(1,34) = 5.18$, $p < .05$), engaged in more frequent "distracting the child" tactics (16 vs. 5%, $F(1,34) = 4.42$, $p < .05$) and showed a longer latency to leave the classroom (186 vs. 112 secs, $F(1,34) = 5.12$, $p < .05$).

Semester effects. Main effects for changes across the semester were as follows: The children looked at, talked to, kissed, and verbally protested to their parents less frequently during the second semester. (See Table 1). Their parents, in turn, less frequently looked at them and talked with them. They also showed a shorter latency to leave during the second semester and less frequently 'sneaked-out" of the room. (See Table 2).

Interaction effects. Interaction effects revealed the following: (1) Infants showed more hugging ($F(2,34) = 5.45$, $p < .01$), reaching to the parent ($F(2,34) = 3.74$, $p < .05$), and hovering ($F(2,34) = 5.59$, $p < .01$) during the second versus the first semester. The increase for hovering was particularly pronounced for female infants ($F(2,34) = 3.44$, $p < .05$). Parents of infants, in turn, showed

an increase in hugging ($F(2,34) = 3.21$, $p < .05$), and parents of infant females showed an increase in hovering ($F(2,34) = 5.21$, $p < .05$). However, there was a decrease in latency to leave the classroom by parents of infants across the two semesters ($F(2,34) = 15.65$, $p < .001$); (2) Toddler females showed more frequent attention-getting behaviors ($F(2,34) = 5.06$, $p < .05$), more verbal protest ($F(2,34) = 7.78$, $p < .005$), more reaching to parent ($F(2,34) = 3.82$, $p < .05$), and more crying behaviors ($F(2,34) = 4.01$, $p < .05$) than the other groups during both semesters. They also showed the greatest decrease in verbal protest across the two semesters ($F(2,34) = 5.41$, $p < .01$). Parents of toddlers showed an increase in saying goodbye ($F(2,34) = 3.47$, $p < .05$), and a decrease in hovering ($F(2,34) = 6.07$, $p < .005$), latency to leave the room ($F(2,34) = 15.65$, $p < .001$), and "sneaking out of the room" ($F(2,34) = 16.49$, $p < .001$) by the second semester.

Regression analyses on verbal protest and crying behavior during leavetakings

Stepwise regression analyses were conducted using verbal protest and crying behaviors as the dependent measures to determine whether any of the coded leavetaking behaviors contributed to the variance in distressful responses to leavetaking. As can be seen in Table 3, six variables accounted for 63% of the variance on child verbal protest with the variables parent verbal explanation and parent "sneaking out of the room" accounting for the largest amount of the variance. Verbal protest occurred more frequently when the parent (1) did not look at the children's activities, (2) provided a verbal explanation, (3) sneaked out of the room, and more frequently when the child (1) was female, (2) engaged in attention-getting behaviors, and (3) did not talk to the teacher.

For crying behavior, 12 variables entered the equation and accounted for 89% of the variance. Of these, the parent distracting the child accounted for

66% of the variance with the remaining variables accounting for significant but small amounts. A child was more likely to cry if the parent engaged in distracting behavior, did not talk to the teacher, did not look at the children's activities, and took longer to leave the classroom. The child more frequently cried if he or she did not look at the children's activities or the teacher, and if he or she looked at, talked to, verbally protested to, reached up, and hovered around the parent.

Insert Table 3 about here

Reunion behaviors

A significant multivariate analysis on the group of second semester reunion behaviors was followed by 3(age group) x 2(sex) x 2(sex of parent) univariate ANOVAs. These analyses revealed the following (See Table 4): (1) the only parent behaviors which varied as a function of the child's age were: parents of infants moved toward the child more frequently, which might be expected because of the infants' lesser mobility, and parents of toddlers and preschoolers showed more frequent caretaking, probably because their children were "dirtier" from active play; (2) most of the group differences in the children's behaviors appeared to be developmental age related. Toddlers and preschoolers showed more smiling at the parent, kissing and hugging the parent, chatting with the parent, and moving away from the parent after making contact. The toddlers showed a shorter latency to join the parent during their reunions, and the preschoolers showed more "leading the departure" behavior; (3) the only sex differences which emerged were that females were more likely to continue play during the reunion (41 vs. 31%, $F(1,35 = 4.91$, $p < .05$), but also showed more reaching up to the parent during the hugging and kissing greeting behaviors (46 vs. 33%, $F(1,35) = 5.36$, $p < .05$); (4) the only differences noted for sex of parent were that mothers vs. fathers chatted with their children more

frequently (98 vs. 79%, $F(1,35) = 5.79$, $p < .05$) and children who were "picked-up" by fathers as opposed to mothers more frequently continued to play (35 vs. 24%, $F(1,35) = 6.08$, $p < .05$).

Insert Table 4 about here

Regression analyses on "child continuing play" and "leading departure" during reunions

Stepwise regression analyses were conducted using child continuing play and child leading departure behaviors at reunion to determine whether any of the coded leavetaking and reunion behaviors related to the child's reluctance or readiness to leave the classroom at the end of the day. As can be seen in Table 5, five variables accounted for 65% of the variance on child continuing play when the parent arrived. That the parent of a child continuing to play would walk toward the child is not surprising. The negative relationship between child continuing to play and leading departure is similarly not surprising. That child hovering and verbally protesting during leavetaking (particularly among girls who had shown these behaviors more frequently) are variables related to child continuing play during reunion suggests that there may be a pattern of ambivalence about both leavetakings and reunions among some children.

Four variables entered the regression on child leading departure to account for 60% of the variance. The pattern suggested here is one of non-ambivalence about leavetakings and reunions. The child who leads the departure at the end of the day is less likely to have continued playing when the parent arrived and more likely to have talked to the parent upon reunion, more likely to have moved toward the children's activities during leavetakings, and less frequently looked at the parent during leavetakings.

Insert Table 5 about here

Discussion

These data suggest that leavetaking and reunion behaviors differ as a function of the child's age, sex, and duration of time in school and as a

function of the parent's sex. Parallels were noted in the children's and parents' behaviors, and patterns emerged in leavetaking/reunion styles of the child-parent dyads.

The age or developmental differences are consistent with the literature; toddlers were more frequently distressed by the leavetakings than infants or preschoolers. A similar curvilinear trend has been documented by several investigators (Fox, 1977; Kearsley, Zelazo, Kagan, & Hartmann, 1975; Kotelchuck, 1970). While the greatest amount of distress shown in these studies occurred within the range of 12-18 months, distress behaviors were most frequent in our study at around two years. This slightly later period of distress may relate to our children having more than one primary caregiver. As has been noted previously, children with more than one primary caregiver tend to show separation protest later (Kotelchuck, 1970; Spelke, Zelazo, Kagan, & Kotelchuck, 1973). That verbal protest decreased dramatically over the two semesters for toddlers, while hovering and clinging behaviors significantly increased for infants, suggests that proximity-maintining behaviors at leavetaking may follow a developmental curve, and that time spent in nursery school is a less influential factor.

That females were more distressed than males, and female toddlers in particular, is inconsistent with other reports of greater distress among males (Tennes & Lampl, 1964). Differential responses to leavetaking by girls and boys may relate to parallel behaviors noted in parents. Most of our girls were "dropped off" by their mothers, while several of our boys were "dropped off" by their fathers. Spelke et al. (1973) found that infants of high-interacting fathers (which presumably characterized our fathers) protested less than infants of low-interacting fathers. Although Weinraub and Frankel (1977) have suggested that infants are less distressed when left by the same-sex parent, the results of our study suggested that children "dropped off" by the mother

as opposed to the father showed more frequent attention-getting and crying behaviors and their mothers showed more frequent "distracting the child" tactics and a longer latency to leave the classroom, variables which accounted for significant amounts of the variance in our regression on crying behavior. Thus, the differential behavior of the mothers and fathers and the children they "dropped off" may explain these sex effects. Weinraub and Frankel (1977) reported that 40% of their mothers and none of their fathers worried about their infants' impending responses to departure and that 75% of the mothers while only 35% of the fathers expected their infants to cry. Parents may behave in ways which are consistent with their worries and expectations and in turn reinforce their children's behaviors. As Fox (1977) has suggested, certain parental behaviors may serve as cues for particular infant protest behaviors [see Gewirtz (1972) and Fleener & Cairns (1970) for a detailed analysis of such a position]. The mother's distracting the child behaviors may have served as discriminative cues for child protest behaviors, and her hesitancy to depart may have reinforced those behaviors once they were evoked.

Although the question of who initiated what behaviors in complex streams of interaction is difficult to answer, particularly when the interaction is already in process as the observation begins (i.e., as the dyad entered the classroom), the parallels in child and parent behaviors were striking. Infants and toddlers spent more time looking at, approaching, and vocalizing to their parents as did their parents to them, an expected finding since Blurton Jones and Leach (1972) had also found that mothers of younger children spent more time relating to their children. Preschoolers and their parents spent more time relating to their teachers, again raising the question of who was modelling the behavior, parent or child. Toddlers showed more hovering, attention-getting, verbal protest, clinging, and crying and their parents more hovering, distracting behaviors, and "sneaking out" of the classroom which,

in turn, predicted verbal protest and crying behaviors in our regression analyses. Mothers who simply sneaked out of the playroom in the Weinraub and Lewis (1977) study also had infants who were more likely to cry. In their study, children of mothers who provided a verbal explanation of the leavetaking were less likely to cry, while in our study verbal explanations and sneaking out accounted for the leargest amount of variance (43%) in verbal protest. Weinraub (Note 1) suggests that the difference between their data and ours on verbal explanations may relate to their mothers providing shorter explanations, shorter latency to leave, and presumably fewer cues of reluctance to leave since their separations were only two minutes and separations for our children were an entire working day.

Another parallel in child and parent behavior was the considerable decrease over the two semesters of parents and children relating to each other, of child verbal protest, and of parent latency to leave the classroom. These parallels and the large amounts of variance accounted for by parent behaviors in child distress behaviors (verbal protest and crying) are not consistent with the notion of Blurton Jones and Leach (1972) that the mother is merely "in a 'responding mode' at these times, mainly waiting to receive and act on signals from her child" (1972, p. 232) as was mentioned earlier. Rather, they are more consistent with the idea that parent behaviors both cue and reinforce child responses (Fleener & Cairns, 1970; Fox, 1977; Gewirtz, 1972).

The regression analysis on leavetaking and reunion behaviors is suggestive of separation/reunion patterns commonly noted in the strange situation procedure studies by Ainsworth and her colleagues (Ainsworth & Bell, 1970; Ainsworth & Wittig, 1969; Stayton et al., 1973). Continuing play (when the parent arrived to "pick-up" the child) was related to hovering and verbally protesting during leavetakings, suggesting that children who are distressed by leavetakings

are ambivalent about reunions. The pattern suggested by the regression on leading the departure or readiness to leave the classroom at the end of the day was one of non-ambivalence for both leavetakings and departures. The child who led the departure at the end of the day was less likely to have continued play when the parent arrived and more likely to have talked to the parent upon reunion, more likely to have moved toward the children's activities during leavetakings, and less frequently to have looked at the parent during leavetakings. An alternative interpretation of these patterns is that certain children may have trouble "decathecting" or removing themselves from the discriminative and reinforcing cues of any attachment figure, be it the parent in the morning or the peers and teacher in the afternoon. Others, in contrast, may be more adaptable in moving from one attachment figure to the other (parent to teacher and children in the morning, and the reverse at the end of the day).

To tease out these relationships and the mirroring of distress and ambivalance behaviors in children and parents as well as the other parallels in child-parent behaviors noted in this study may require more fine-grained coding and microanalysis of second by second behaviors as well as sequential analyses. Nonetheless, these findings suggest that the leavetaking/reunion process is an interactive one, with large contributions made to the dynamics of it by both parent and child.

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Table 1. Mean percentage of leavetakings that child behaviors occurred. Second semester precentages are in parentheses.

Behaviors Child	Interobserver Reliabilities	Group Infants	Toddlers	Preschoolers	F values Group (df=2,34)	Semester (df=1,35)
Looking at - parent	(.96)	40 (29)	32 (26)	17 (2)	7.05[3]	4.54[1]
- teacher	(.92)	17 (31)	16 (41)	30 (22)	4.81[1]	--
- activity	(.93)	36 (32)	37 (31)	10 (12)	22.72[4]	--
Moving to - parent	(.99)	10 (19)	18 (13)	7 (3)	4.10[1]	--
- teacher	(.97)	6 (14)	2 (18)	27 (9)	6.45[3]	--
- activity	(.94)	62 (48)	56 (41)	53 (52)	--	--
Talking to - parent	(.97)	14 (3)	26 (4)	10 (6)	3.43[1]	16.93[4]
- teacher	(.83)	6 (5)	8 (9)	18 (10)	5.14[1]	--
- child	(.78)	6 (7)	6 (9)	12 (16)	--	--
To parent - kissing	(.91)	1 (3)	18 (5)	22 (7)	3.80[1]	4.26[1]
- hugging	(94)	2 (11)	15 (15)	16 (14)	3.50[1]	--
- saying bye	(.96)	1 (3)	5 (7)	16 (12)	3.76[1]	--
- hovering	(.83)	6 (11)	15 (8)	10 (7)	4.13[1]	--
- attention-getting	(.95)	1 (3)	9 (6)	4 (3)	3.30[1]	--
- verbal protest	(.97)	1 (1)	14 (2)	4 (1)	11.20[4]	19.99[4]
- reaching/clinging	(.82)	8 (14)	20 (17)	15 (4)	4.03[1]	--
- crying	(.93)	8 (12)	16 (8)	3 (2)	5.21[1]	--

p values

1 < .05
2 < .01
3 < .005
4 < .001

Table 2. Mean percentage of leavetakings that parent behaviors occurred.

Second semester percentages are in parentheses.

Behaviors		Group		F values	
Parent	Interobserver Reliabilities	Infants	Toddlers	Preschoolers	Group (df=2,34)	Semester (df=1,35)
Looking at - teacher	(.98)	5 (9)	13 (11)	23 (25)	4.58[1]	--
- child	(.94)	47 (37)	46 (10)	7 (2)	23.77[4]	91.18[4]
Moving to - teacher	(.99)	2 (3)	4 (2)	8 (2)	4.10[1]	--
- child	(.95)	34 (38)	24 (20)	6 (2)	14.77[4]	--
- activity	(.98)	7 (5)	14 (13)	5 (3)	4.87[2]	--
Talking to - teacher	(.86)	36 (29)	23 (31)	40 (30)	5.07[2]	--
- child	(.86)	50 (38)	52 (30)	25 (15)	6.11[3]	10.53[3]
To child - kissing	(.99)	39 (47)	46 (25)	53 (46)	--	--
- hugging	(.83)	21 (44)	41 (32)	35 (29)	4.21[1]	--
- saying bye	(.97)	73 (73)	50 (61)	63 (50)	--	--
- hovering	(.96)	6 (8)	22 (5)	10 (2)	4.39[1]	--
- verbal explanation	(.98)	6 (9)	11 (9)	9 (2)	--	--
- distracting	(.95)	14 (17)	18 (11)	5 (2)	3.34[1]	--
- sneaking out	(.99)	7 (2)	14 (1)	4 (1)	13.91[4]	19.07[4]
- latency to leave(secs)	(.80)	407 (208)	91 (56)	72 (47)	--	18.94[4]

p values

1 < .05
2 < .01
3 < .005
4 < .001

Table 3. Stepwise regression analyses on leavetaking verbal protest and crying behaviors.

Verbal Protest Behavior

Summary Table

Step No.	Variable Entered	Sign	R	Multiple RSQ	Increase in RSQ	F-to-enter
1	P verbal explanation	+	.48	.23	.23	16.36
2	P sneak out	+	.66	.43	.20	19.62
3	P look at activity	-	.71	.51	.08	8.23
4	C attention-getting	+	.75	.56	.05	6.50
5	C talk to teacher	-	.77	.60	.04	5.29
6	C sex (female)	+	.80	.63	.03	4.46

Crying Behavior

Step No.	Variable Entered	Removed	Sign	R	Multiple RSQ	Increase in RSQ	F-to-enter	F-to-remove
1	P distracting C		+	.81	.66	.66	106.58	
2	C look at P		+	.84	.71	.05	11.07	
3	C verbal protest		+	.86	.74	.03	5.73	
4	C look at activity		-	.88	.77	.03	5.84	
4	C reach to P		+	.89	.79	.02	6.27	
6	P talk to teacher		-	.90	.82	.03	7.48	
7	C age		-	.92	.84	.02	7.44	
8	C hover		+	.93	.86	.02	5.42	
9	C look at teacher		-	.93	.87	.01	5.94	
10		C age		.93	.86	-.01		2.60
11	C talk to P		+	.94	.88	.02	5.84	
12	P look at activity		-	.94	.89	.01	4.14	
13		C verbal protest		.94	.88	-.01		2.73
14	P latency to leave		+	.95	.89	.01	4.40	

Table 4. Mean percentage of reunions that behaviors occurred.

(Interobserver reliabilities in parentheses).

Behavior		Group			F values (df = 2,35)
		Infants	Toddlers	Preschoolers	Group
Initiate reunion - parent	(.94)	85	77	74	--
- child	(.91)	7	11	16	--
P move toward child	(.98)	7	54	44	5.61[3]
C continuing play	(.93)	33	39	34	--
Smiling - parent	(.97)	68	77	77	--
- child	(.89)	28	66	59	12.95[4]
Kissing - parent	(.99)	61	61	44	--
- child	(.96)	4	13	14	5.53[2]
Hugging - parent	(.99)	47	45	33	--
- child	(.90)	3	13	13	4.81[1]
C reach to parent	(.87)	40	44	35	--
Chatting - parent	(.92)	87	90	91	--
- child	(.81)	54	81	87	27.44[4]
Caretaking	(.84)	48	83	86	52.25[4]
C lead departure	(.87)	10	14	31	7.87[4]
C move away	(.83)	8	18	26	6.07[2]
Latency C to join parent (secs)	(.86)	415	241	471	5.12[2]

p values

1 < .05
2 < .01
3 < .005
4 < .001

Table 5. Stepwise regression on the reunion behaviors of child (C) continuing play and child leading departure behaviors.

Child Continuing Play

Summary Table

Step No.	Variable Entered	Sign	R	Multiple RSQ	Increase in RSQ	F-to-enter
1	P walk to C reunion	+	.54	.29	.29	16.11
2	C hover leavetaking	+	.70	.45	.16	11.41
3	C verbal protest leavetaking	+	.75	.56	.11	9.34
4	C sex (female)	+	.78	.61	.05	4.43
5	C lead departure	-	.81	.65	.04	4.76

Child Leading Departure

Summary Table

Step No.	Variable Entered	Sign	R	Multiple RSQ	Increase in RSQ	F-to-enter
1	C talk to P reunion	+	.54	.29	.29	16.45
2	C move to activities leavetaking	+	.64	.42	.13	8.24
3	C look at parent leavetaking	-	.72	.52	.10	7.91
4	C continue play reunion	-	.77	.60	.08	7.44